

**PATENT COOPERATION TREATY**  
**PCT**  
**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**  
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 14394/WO/02	<b>FOR FURTHER ACTION</b> <small>See Notification of Transmittal of International Preliminary Examination Report (Form PCT/APEA/416)</small>	
International application No PCT/IL 03/00570	International filing date (day/month/year) 10.07.2003	Priority date (day/month/year) 12.07.2002
International Patent Classification (IPC) or both national classification and IPC B62K3/10, B62K19/34, B62K19/36		
Applicant YIFRAH, Nir et al.		

<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 6 sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of 1 sheets.</p>
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the opinion  II <input type="checkbox"/> Priority  III <input checked="" type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  IV <input type="checkbox"/> Lack of unity of invention  V <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement  VI <input type="checkbox"/> Certain documents cited  VII <input type="checkbox"/> Certain defects in the international application  VIII <input type="checkbox"/> Certain observations on the international application</p>

Date of submission of the demand 30.01.2004	Date of completion of this report 20.09.2004
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer  Avisse, M Telephone No. +49 89 2399-7214  

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International application No. PCT/IL 03/00570

**I. Basis of the report**

1. With regard to the elements of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

1-14 as originally filed

**Claims, Numbers**

3-6 as originally filed  
1-2 received on 29.07.2004 with letter of 29.07.2004

**Drawings, Sheets**

1/8-8/8 as originally filed

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).  
 the language of publication of the international application (under Rule 48.3(b)).  
 the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.  
 filed together with the international application in computer readable form.  
 furnished subsequently to this Authority in written form.  
 furnished subsequently to this Authority in computer readable form.  
 The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.  
 The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description, pages:  
 the claims, Nos.:  
 the drawings, sheets:

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5.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

the entire international application,

claims Nos. 7

because:

the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (specify):

the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 7 are so unclear that no meaningful opinion could be formed (*specify*):

*see separate sheet*

the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

no international search report has been established for the said claims Nos.

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

the written form has not been furnished or does not comply with the Standard.

the computer readable form has not been furnished or does not comply with the Standard.

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N) Yes: Claims 1-6  
No: Claims

Inventive step (IS) Yes: Claims  
No: Claims 1-6

Industrial applicability (IA) Yes: Claims 1-6  
No: Claims

**2. Citations and explanations**

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see separate sheet

**Re Item III**

Claim 7 contains references to the description and drawings. According to Rule 6.2(a) PCT, claims should not contain such references except where absolutely necessary, which is not the case here.

Consequently, lack of clarity of claim 7 arises, since it is not possible to determine the matter for which protection is sought.

Hence, no examination of claim 7 will be carried out.

**Re Item V**

1. Claim 1

- 1.1 Document FR-A-2 718 703 (D1), which is considered to represent the most relevant state of the art, discloses (cf. D1: page 1, lines 17-32; figures 1 and 2) a bicycle with adjustable orientation of the seat and the pedals with respect to the handlebars for aiding the rider to maintain the forward motion of the bicycle (see D1: page 1, lines 17-23, lines 28-32), said bicycle comprising:
- an x shaped frame, said frame comprising a profile (8) and a rigid support member (6), wherein said profile and said rigid support member are rotatably connected to each other by a hollow pin and wherein the rider of said bicycle can change the angle between said profile (8) and said rigid support member (6) by activating a tilting mechanism (22, 24) to cause said rigid support member (6) to rotate about said hollow pin,
  - a seat (2) attached to the upper part of said rigid support member (6),
  - a first toothed-wheel attached to said frame by means of a pin passing through said toothed-wheel and the lower part of said rigid support member (6), said pin having a crank and pedal (4) attached to each of its ends, a front gear being mounted around said pin.
- 1.2 The subject-matter of claim 1 differs from this known bicycle in that:
- a second toothed-wheel is attached to a pin that passes through said hollow pin located between said seat and said first toothed-wheel; and
  - said front gear is attached to the pin passing through said hollow pin.
- 1.3 The problem to be solved by the present invention may therefore be regarded as to provide a construction for bicycles with pivoting/adjusting frame which enables to keep the transmission chain tensioned when the position of the pedal crank

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axle varied with respect to the handlebars or to said profile and consequently with respect to the bicycle driving wheel.

- 1.4 Document WO-A-01 02240 (D2) shows a bicycle with adjustable orientation of the pedal crank axle and the seat. In order to keep the transmission chain tensioned when the pedal crank axle is pivoted with respect to the profile of the frame, document D2 foresees the use of an additional sprocket with toothed-wheels (see D2: page 5, second and third paragraphs), wherein said sprocket can be mounted on the pivoting axis of said pedal crank axle.

Document WO-A-01 15963 (D3) shows a bicycle with a pivotable rear wheel assembly. Although the distance between the bicycle rear wheel axle and the pedal crank axle varies, the transmission chain is kept tensioned (see D3: figures 1, 3 and 6; page 5, lines 24-30, page 6, lines 1-10) with the help of an intermediate sprocket located on the pivoting axis of the pedal crank axle with respect to the rear wheel assembly (this pivoting axis is identical with the pivoting axis of the rear wheel assembly with respect to the frame). The front gear is provided at the same location as the intermediate sprocket.

- 1.5 Since documents D2 and D3 describe the use of intermediate sprockets located on the pivoting axis of the pedal crank axle as providing the same advantages as in the present application, the skilled person would regard it as a normal option to include such sprockets in document D1 in order to solve the problem posed.

Hence, the subject-matter of claim 1 does not involve an inventive step (Article 33(3) PCT).

2. Claims 2-6

Dependent claim 2-6 do not appear to contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step.

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Claims

1. A bicycle with adjustable orientation of the seat and the pedals with respect to the handlebars for aiding the rider to maintain the forward motion of the bicycle comprising an x shaped frame, said frame comprised of a profile and a rigid support member, wherein said profile and said rigid support member are rotatably connected to each other by a hollow pin and wherein the rider of said bicycle can change the angle between said profile and said rigid support member by activating a tilting mechanism to cause said rigid support member to rotate about said hollow pin, said bicycle further comprising a seat attached to the upper part of said rigid support member, a first toothed-wheel attached to said frame by means of a pin passing through said toothed-wheel and the lower part of said rigid support member, said pin having a crank and pedal attached to each of its ends, and a front gear and second toothed-wheel attached to a pin that passes through said hollow pin located between said seat and said first toothed-wheel.
2. A bicycle according to claim 1, wherein the profile is comprised of two pieces connected by a joint and the pin that connects said profile and the rigid support member passes through said joint.